

**Contents**

<b>Preface</b> .....	ix
<b>Conservation</b>	
A global perspective on the utilization of genetically modified organisms in aquaculture and fisheries	
D.M. Bartley (Rome, Italy) and E.M. Hallerman (Blacksburg, VA, USA) .....	1
Incorporating risk assessment and risk management into public policies on genetically modified finfish and shellfish	
E.M. Hallerman (Blacksburg VA, USA) and A.R. Kapuscinski (St. Paul MN, USA) .....	9
Isolation of salmonid microsatellite loci and their application to the population genetics of Canadian east coast stocks of Atlantic salmon	
S. McConnell, L. Hamilton, D. Morris, D. Cook, D. Paquet, P. Bentzen and J. Wright (Halifax, NS, Canada) .....	19
A single locus PCR amplified minisatellite region as a hypervariable genetic marker in gadoid species	
P. Galvin, D. McGregor and T. Cross (Cork, UK) .....	31
Evidence for genetic purity of captive and domestic striped bass broodstocks	
L. Curry Woods, B. Ely, G. Leclerc and R.M. Harrell (Baltimore, MD, USA) .....	41
<b>Abstracts</b> .....	45
<b>General Genetics</b>	
Sex determination in tilapia ( <i>Oreochromis niloticus</i> ) sex ratios in homozygous gynogenetic progeny and their offspring	
A. Müller-Bielecke and G. Hörstgen-Schwark (Göttingen, Germany) .....	57
Asymmetry and variability of meristic characters and spotting in isogenic lines of rainbow trout	
W.P. Young, P.A. Wheeler and G.H. Thorgaard (Pullman, WA, USA) .....	67
Fluctuating asymmetry in Atlantic salmon, European trout and their hybrids, including triploids	
N.P. Wilkins, E. Gosling (Galway, UK), A. Curatolo (Trapani, Italy), A. Linnane, C. Jordan and H.P. Courtney (Galway, UK) .....	77
A panel of minisatellite (VNTR) DNA locus specific probes for potential application to problems in salmonid aquaculture	
P.A. Prodöhl (Belfast, UK), J.B. Taggart (Stirling, UK) and A. Ferguson (Belfast, UK) .....	87
<b>Abstracts</b> .....	99
<b>Chromosome Manipulation</b>	
Effects of timing of stripping and female on the viability of gynogenetic and non-gynogenetic diploid pink salmon ( <i>Oncorhynchus gorbuscha</i> )	
P.A. Crandell, M.P. Matsuoka and W.W. Smoker (Juneau, AL, USA) .....	109
Incidence of albinos as a monitor for induced triploidy in rainbow trout	
G.H. Thorgaard, P. Spruell, P.A. Wheeler, P.D. Scheerer, A.S. Peek (Pullman, WA, USA), J.J. Valentine (Salt Lake City, UT, USA) and B. Hilton (Bicknell, UT, USA) .....	121
Production of androgenetic diploid loach <i>Misgurnus anguillicaudatus</i> using spermatozoa of natural tetraploids	
K. Arai, M. Ikeno and R. Suzuki (Higashi-hiroshima, Japan) .....	131
Maternal influence on development of androgenetic clones of common carp, <i>Cyprinus carpio</i> L.	
A.B.J. Bongers, J.B. Abarca, B. Zandieh Doulabi, E.H. Eding, J. Komen and C.J.J. Richter (Wageningen, Netherlands) .....	139
<b>Abstracts</b> .....	149

## Molecular Manipulation

Transmission and phenotypic effects of an antifreeze/GH gene construct in coho salmon ( <i>Oncorhynchus kisutch</i> )	
R.H. Devlin, T.Y. Yesaki, E.M. Donaldson and C.-L. Hew (West Vancouver, BC, Canada)	161
Isolation and characterization of somatotactin from pituitary glands of gilthead sea bream <i>Sparus aurata</i>	
B. Cavari (Haifa, Israel), T. Noso and H. Kawauchi (Iwate, Japan)	171
Inheritance of recombinant carp $\beta$ -actin/GH cDNA gene in transgenic carp	
B. Moav, Y. Hinitz, Y. Groll (Ramat Aviv, Israel) and S. Rothbard (Gan Shmuel, Israel)	179
<b>Abstracts</b>	187

## Quantitative Genetics

Genetic variation of some physiological traits of clonal ayu ( <i>Plecoglossus altivelis</i> ) under stressed and non-stressed conditions	
G. Del Valle and N. Taniguchi (Kochi, Japan)	193
Ovarian differentiation in common carp ( <i>Cyprinus carpio</i> ) in relation to growth rate	
W.L. Shelton, V. Wanniasingham and A.E. Hiott (Norman, OK, USA)	203
Applications of selection for multiple traits in cage-reared Atlantic salmon ( <i>Salmo salar</i> )	
G.W. Friars, J.K. Bailey and F.M. O'Flynn (St. Andrews, N.B. EOG, Canada)	213
A test of an on-farm selection procedure for tilapia growth in Indonesia	
V.J. Brzeski and R.W. Doyle (Halifax, N.S., Canada)	219
Heterogeneity in the body size of Ontario cultured rainbow trout with different mitochondrial DNA haplotypes	
R.G. Danzmann and M.M. Ferguson (Guelph, Ont., Canada)	231
DNA fingerprint based analysis of paternal and maternal effects on offspring growth and survival in communally reared rainbow trout	
C.M. Herlinger, R.W. Doyle, E.R. Pitman, D. Paquet, K.A. Mesa, D.B. Morris, J.M. Wright and D. Cook (Halifax, NS, Canada)	245
Divergent selection for antibody production to produce standard carp ( <i>Cyprinus carpio</i> L.) lines for the study of disease resistance in fish	
G.F. Wiegertjes, R.J.M. Stet and W.B. Van Muiswinkel (Wageningen, Netherlands)	257
Analysis of a diallel cross to estimate effects of crossing on resistance to enteric septicemia in channel catfish, <i>Ictalurus punctatus</i>	
W.R. Wolters and M.R. Johnson (Stoneville, MS, USA)	263
<b>Abstracts</b>	271

## Hybrids and Strains

Hybrid vigor in Pacific oysters: an experimental approach using crosses among inbred lines	
D. Hedgecock, D.J. McGoldrick (Bodega Bay, CA, USA) and B.L. Bayne (Plymouth, UK)	285
Sexual maturation and fertility of diploid and triploid Atlantic salmon $\times$ brown trout hybrids	
P.F. Galbreath and G.H. Thorgaard (Pullman WA, USA)	299
Growth performance trials of genetically male tilapia (GMT) derived from YY-males in <i>Oreochromis niloticus</i> L.: On station comparisons with mixed sex and sex reversed male populations	
G.C. Mair (Swansea, UK), J.S. Abucay (Nueva Ecija, Philippines), J.A. Beardmore and D.O.F. Skibinski (Swansea, UK)	313
<b>Abstracts</b>	325

## Performance of Polyploid Fish

Freshwater performance of triploid Atlantic salmon ( <i>Salmo salar</i> ) in New Brunswick aquaculture	
S.A. McGeachy, T.J. Benfey (Fredericton, N.B., Canada) and G.W. Friars (St. Andrews, N.B., Canada)	333
Testing of triploid Tilapia ( <i>Oreochromis niloticus</i> ) under tropical pond conditions	
U. Brämick, B. Puckhaber, H.-J. Langholz and G. Hörstgen-Schwark (Göttingen, Germany)	343
<b>Abstracts</b>	355

